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Application No. 10/772,070
Reply to Office Action of December 13, 2006

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FEB 27 2007

Docket No.: 60723(72012)

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1 (Withdrawn). A developer manufacturing method, comprising the steps of:
dissolving a binding resin component in a supercritical or subcritical fluid so that the binding resin component is blended with a coloring agent component; and
reducing the solubility of the binding resin component in the supercritical or subcritical fluid so that the binding resin component is precipitated in the form of particles with the coloring agent component dispersed in the interior of the binding resin component,

wherein a reactor provided with at least a stirring mechanism and a mechanism for discharging the dissolved components has a developer material carrier comprising a mesh that prevents the passage of treated materials and allows the passage of the supercritical or subcritical fluid.

2 (Currently amended). A developer manufacturing apparatus comprising at least a reactor, a jet mechanism and a mechanism connecting therebetween, wherein
the reactor comprises an inlet for passage of supercritical or subcritical fluid into the reactor, a developer material carrier comprising a mesh that prevents the passage of treated developer materials and allows the passage of the supercritical or subcritical fluid having dissolved developer components and dispersed coloring agent, a stirring mechanism and an outlet for the dissolved developer components and dispersed coloring agent carried by the supercritical or subcritical fluid;

the jet mechanism ejecting the dissolved developer components and dispersed coloring agent carried by the supercritical or subcritical fluid into an open chamber, thereby forming particles of developer having dispersed coloring agent.

a developer is manufactured by the steps of:

dissolving a binding resin component in a supercritical or subcritical fluid so that the binding resin component is blended with a coloring agent component;
and

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-----reducing the solubility of the binding-resin component in the supercritical or subcritical fluid so that the binding-resin component is precipitated in the form of particles with the coloring-agent component dispersed in the interior of the binding resin component;

----- wherein the reactor provided with at least a stirring mechanism and a mechanism for discharging the dissolved components has a developer-material carrier comprising a mesh that prevents the passage of treated materials and allows the passage of the supercritical or subcritical fluid.

3 (Original). The developer manufacturing apparatus according to claim 2, wherein the developer material carrier comprises a plurality of meshes.

4 (Original). The developer manufacturing apparatus according to claim 2, wherein the developer material carrier has a stirring mechanism incorporated therein.

5 (Original). The developer manufacturing apparatus according to claim 2, wherein the developer material carrier rotates together with the stirring mechanism.

6 (Original). The developer manufacturing apparatus according to claim 2, wherein the developer material carrier rotates in reverse relative to the rotation direction of the stirring mechanism.

7(Original). The developer manufacturing apparatus according to claim 2, wherein the developer material carrier also functions as a stirring mechanism.

8 (Withdrawn). A developer manufactured by the method of claim 1.

9 (New). The developer manufacturing apparatus according to claim 2, further comprising a pressure reducing device is located between the reactor and the jet mechanism.